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### G91-1028 Preparing Fabric for Use

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*University of Nebraska - Lincoln*

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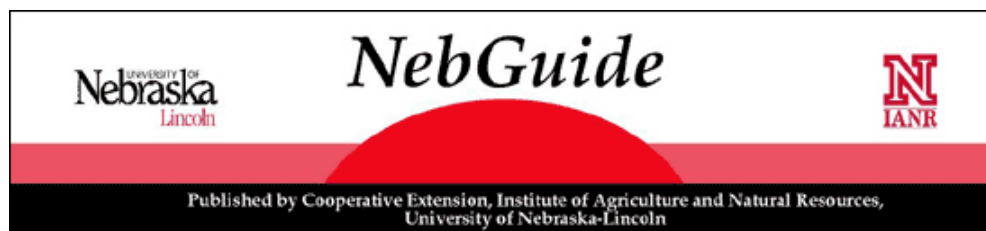
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## Preparing Fabric for Use

Grain perfection is the goal for people who sew.

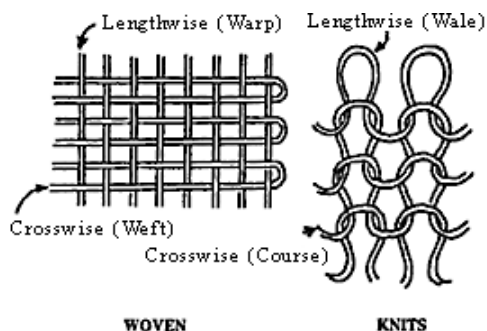
*Rose Marie Tondl, Extension Specialist, Textiles, Clothing and Design\**

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Smart styling and a professional look in clothing construction require correct use of the grain of the fabric. No formula or method can conceal a poorly cut garment.

Garment pieces cut or pulled off grain will not fit correctly and will hang poorly when worn. Whether simple or elaborate in design, the fabric shows whether or not it has been cut on the exact grain.

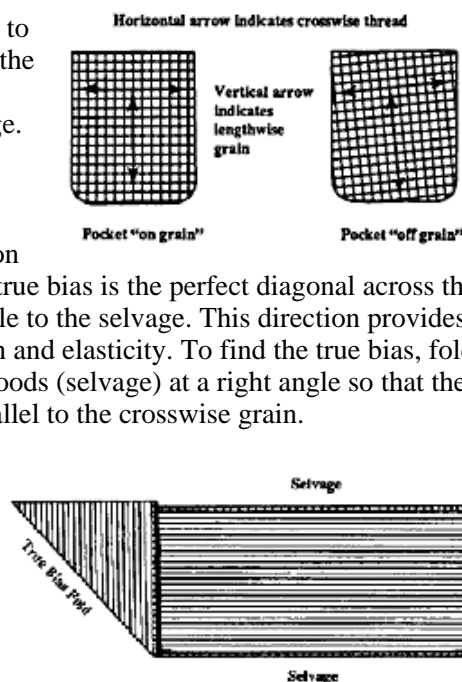
"Grain" is the direction of yarns in a fabric. The lengthwise grain refers to yarns running the length of the fabric piece. These yarns are parallel to the selvage (or finished) edges of the fabric. The crosswise grain refers to yarn running across the width of the fabric piece from selvage to selvage. Corresponding terms for knits are "wales" for lengthwise direction and "courses" for the crosswise direction.



facings, trims, etc. Other diagonal folds or cuts at any other angle may also be called bias, but they are garment bias and not true bias. They provide less stretch than does a true bias.

A third important direction is that of the "bias." The true bias is the perfect diagonal across the fabric, forming a 45° angle to the selvage. This direction provides the greatest amount of stretch and elasticity. To find the true bias, fold the lengthwise grain of the goods (selvage) at a right angle so that the lengthwise grain lies parallel to the crosswise grain.

This fold gives the direction of the true bias. True bias should be used for bindings,



### Grainline and the Body

Fabric used to clothe the body is flat, but the human figure comes in many rounded forms and shapes. Both the body

and the fabric, however, have a perpendicular or vertical line as their base.



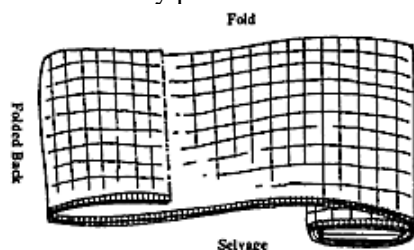
Vertical lines are used as the basis of designing and cutting a garment to fit the body. All darts, gathers or cuts are made with these two points in mind: the lengthwise grain runs vertically, and the crosswise grain runs horizontally. Generally, the lengthwise grain runs from the base of the neck to the hem and on the sleeves from the shoulder to the cuff. The center front and back also run vertically along the lengthwise grain.

Straight grainline is important to the finished look of the garment. A garment that is cut off grain may not hang evenly and may even look distorted.

### Check the Grainline Before You Buy

Some fabrics cannot be returned to grain perfection. These include most knits, fabric on which a design is printed off-grain, synthetic woven and blended fabrics that have been heat-set off-grain during processing, and many fabrics that have a finish (such as permanent press or stain resistant).

In many cases the grain may have been pulled out of shape as a permanent finish was applied, or it may have been imperfectly rolled on the bolt. If it has been imperfectly rolled, it can be processed at home and returned to grainline perfection. Many permanent finishes lock the grainline into place, however, and it cannot be straightened.

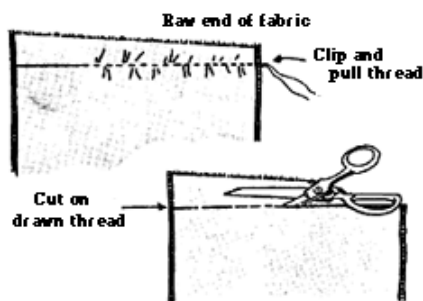


The consumer can determine if a fabric is on the grain by unrolling a yard or so from the bolt while still in the store. Fold the fabric back, matching the selvages. Check to see if the crosswise grains run at right angles to the lengthwise grains. Check on both sides of the fold of a bonded or printed fabric to be sure that both halves are on the grain. If they are not, no amount of correction at home will perfect the grain. Carefully examining the fabric before purchasing it will let you avoid off-grain cuts.

### Preparing the Fabric for Perfection of Grain

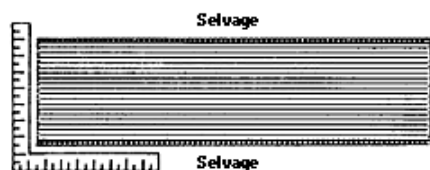
#### *Wovens*

To check the perfect grain, clip into the selvage near the end and pull a crosswise thread over the entire width of the fabric. Cut along the drawn thread. Fold the fabric lengthwise, matching the selvages, and smooth out on a flat surface. If the straightened raw edges match, the fabric is on the grain and ready to use.



#### *Knits and Other Fabrics with Hard-to-Find Grainlines*

If a crosswise thread cannot be pulled to find the true crosswise grain, open up the fabric and lay it so that one of the selvages follows the straight edge of a table. The true crosswise grain can be established by a T-square or yardstick laid at right angles to the table edge. A basting line following this straight edge will mark the crosswise line.



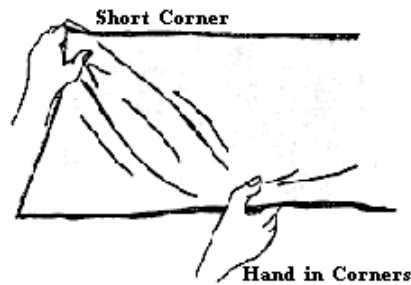
Other possibilities are to follow the wale or course of a knit, or a woven-in or knit-in design line to find both the lengthwise and crosswise grains.

### Returning the Fabric to Grain Perfection

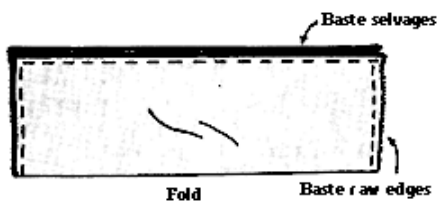
If the raw edges do not match, the fabric must be straightened. Several procedures may be used to return the fabric to true grain.

1. **PULLING ON THE BIAS.** Keep the fabric on the true bias. Start at the shorter corners and stretch the fabric

gently but firmly at intervals until the other end is reached. For a large amount of fabric, two people may be needed to pull the fabric. Check again for perfection in grain. If the fabric still does not meet, repeat the procedure.

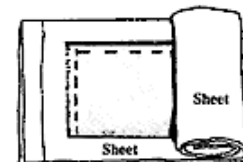
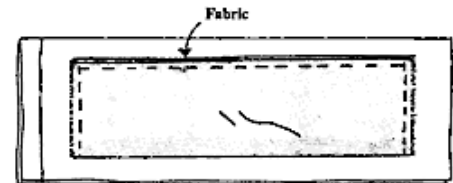


2. **DAMPENING THE FABRIC.** (wool, wool blends, washable fabrics). Fold the fabric lengthwise, with the right sides together, match the selvages and baste them together. Match the straightened raw edges and baste those together. The fabric may be crooked or be wrinkled on the center portion.



Dampen a sheet as if it were just taken from the washer. Fold it lengthwise. Place the dampened sheet on a flat surface and place the fabric on the sheet. Fold the sheet and fabric together with folds about 12 inches (30.5 cm) deep until all the fabric is folded in. Keep the fold as wrinkle free as possible.

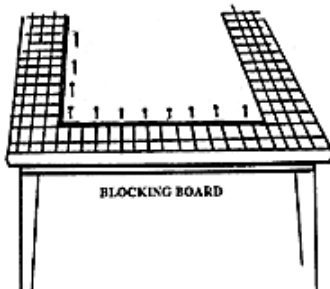
Wrap the fabric in a towel or plastic to keep it from drying out and leave for at least six hours. Unroll the folds before the fabric is completely dry and smooth the piece on a flat surface. Use your hands to pat the piece into grain perfection. Leave until thoroughly dry and remove bastings. Washable fabrics may be pressed on the wrong side following the lengthwise grain. Woolens or wool blends may be gently steam pressed if necessary to remove wrinkles. A protective sole plate on the iron will protect the fabric from excessive heat.



3. **WASHING THE FABRICS.** Washable fabrics may often be returned to grain by simply washing the piece of fabric and drying it in the dryer. In some cases you may prefer to lay the freshly washed fabric on a flat surface to dry and put it into grain perfection while damp. Steam press in a lengthwise direction when dry.

This process also can be used for pre-shrinking washable fabrics.

4. **BLOCKING THE FABRIC.** Along the edges, match the crosswise grain and lengthwise grain at intervals. Baste or pin. Lay out the end section of the fabric on a blocking board. Use the squares as a guide to position the fabric. Pin along selvages and crosswise grain. This process may also be used to pre-shrink fabrics.



Press slowly and carefully up to the fold on the section that you are blocking until any creases or wrinkles lie flat. Protect the fabric from scorching with a protective sleeve or plate on the iron. Be sure each section is cool and dry before moving the fabric. The fabric may stretch if handled too much when warm and damp.

Gently fold the fabric as you block it so that it will remain on grain as you block the rest of the length.

You may also want to do an additional blocking on a smaller section of fabric before the final cutting out of

the garment pieces. Lay out the pattern pieces and cut out the block of fabric around the pattern. Work with this piece on the blocking board until you are sure the crosswise and lengthwise grain are perfectly straight.

This method works best on small amounts of fabric and natural fibers that do not have a finish.

### **Pre-Shrinking of Fabrics**

Most fabrics should be preshrunk, even if they do not require other processing to return them to grain perfection. If a fabric is only slightly off-grain, preshrinking may allow it to relax sufficiently to return to grain perfection. Pre-shrinking may also help remove excess finishes and may make further efforts to straighten the fabric more successful.

Pre-shrink yard goods the same way you will care for the fabric. If a fabric is to be washed and tumble dried, it should be treated this way when pre-shrinking. Some knits may need to be washed and dried several times to take care of shrinkage.

If a garment will be dry-cleaned, you may prefer having a dry cleaner pre-shrink the yard goods for you rather than processing it at home. Sometimes fabrics which have been hand woven or have a novelty weave or a heavy nap do not pre-shrink successfully by home methods. When in doubt of successful home care, take the fabric to a professional.

Many fabrics come ready for the needle. Always check the label on the bolt of material for care directions and to determine if the fabric is ready for use without pre-shrinking.

The professional, custom-made look of clothing depends upon proper care throughout garment construction. Many problems are caused by careless handling of the fabric. The first step to success is beginning with the fabric on the grainline and following this procedure by maintaining accurate grainlines throughout the construction process.

\*Material originally prepared by Linda K. Biles, Extension Specialist (Clothing)

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